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EPA Region 1 RAC 2 Contract No. EP-S1-06-03

June 22, 2009
Nobis Project No. 80021
MA-2090-2009-F

Via Electronic Submittal

U.S. Environmental Protection Agency, Region 1
Attention: Mr. Jim DiLorenzo, Task Order Project Officer
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Subject: Contract No. EP-S1-06-03
Task Order No. 0021-RS-BD-01CH
Laboratory No. 360-21622-1
TestAmerica Tallahassee
Olin Chemical Superfund Site
Wilmington, Massachusetts
CERCLIS No.: MAD001403104
Data Review of Formaldehyde Data from March 2009 Residential Sampling Event

Formaldehyde: 2Aqueous/360-21622-1 (OC-M24L54), 360-21622-2 (OC-M24L94)

Dear Mr. DiLorenzo:

Nobis Engineering, Inc. performed a data review on the formaldehyde data package produced by TestAmerica Tallahassee on two residential water samples that were collected by the principal responsible party (PRP) at the Olin Chemical Superfund Site in Wilmington, Massachusetts on March 18, 2009. The data review was an abbreviated Tier II data validation in accordance with the Region I, EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses, December 1996 Criteria. The purpose of the data review was to confirm the validation results provided by the PRP's validator and to identify any other issues not already discussed in the Data Validation Summary, dated June 2, 2009, prepared by MacTec.

Formaldehyde was analyzed by SW846 Method 8315A. Results were reported by the laboratory originally and then qualified by the PRP data validator as in the following table.

| Sample ID | Original Lab Result (ug/L) | Lab Qualifier | DV Final Result (ug/L) | DV Qualifier |
|---|---|---|---|---|
| 360-21622-1 | 8.9 | JB | 50 | U |
| 360-21622-2 | 9.1 | JB | 50 | U |

Qualifier Key: J=estimated; B=blank contamination; U=non-detect.
Note: The laboratory quantitation limit = 50 ug/L.

The data were qualified due to method blank contamination at 12 ug/L. The following table summarizes the laboratory method blank contamination, action level, reporting limit, and actions that are taken based on sample concentrations.

The following table summarizes the level of blank contamination detected in the laboratory method blank associated with these samples.

| Compound | Type of Blank | Maximum Concentration | Action Level | RL |
|---|---|---|---|---|
| Formaldehyde | Method Blank | 12 ug/L | 60 ug/L | 50 ug/L |

The following actions apply for blank contamination:

- Accept values > Action Level.
- Report as (U) values > CRQL and < Action Level.
- Report RL (U) values < CRQL and < Action Level.

Note: Action Level equals 5 times the maximum concentration.

Appropriately, the validator qualified the positive results for formaldehyde in both samples as non-detect at the RL due to method blank contamination.

All other criteria were met per the PRP validator. However, it was observed that two continuing calibration standards (CCVs) were analyzed with the samples and QC samples, identified on page 178 of the data package as M3.54865, which was run after the initial calibration and batch QC samples and before the field samples, and M4.54865, which was run after the field samples. However, only one CCV was reported, M4.54865 on page 200. Another CCV, 640-54906/26, was reported on Form VII (page 198), which showed a %D outside criteria at -76%D with a maximum of 15%D being acceptable. However, it is unclear if this CCV applies to these sample data and sample M3.54865 was missing from the data. Because the closing CCV, M4.54865, was in control, it is unlikely that the missing CCV data will impact the reported results.

Please contact me at (978) 703-6021 should you have any questions or comments regarding this information.

Very truly yours,

NOBIS ENGINEERING, INC.

Gail DeRuzzo
Lead Chemist

Enclosures: Pages 178, 198, 200 from PRP data pages

Heather Ford, Nobis PM (with Enclosures)

| | SAMPLE NAME | METHOD NAME | DATA FI |
|---|---|---|---|
| 1 | SOLVENT BLANK | A8315F | 1C19M |
| 2 | C1.54840 | A8315F | 1C19M |
| 3 | C2.54840 | A8315F | 1C19M |
| 4 | C3.54840 | A8315F | 1C19M |
| 5 | C4.54840 | A8315F | 1C19M |
| 6 | C5.54840 | A8315F | 1C19M |
| 7 | MB 640-54840/1A | A8315F | 1C19M |
| 8 | C4.54840 | A8315F | 1C19M |
| 9 | C1.54865 | A8315F | 1C19M |
| 10 | C2.54865 | A8315F | 1C19M |
| 11 | C3.54865 | A8315F | 1C19M |
| 12 | C4.54865 | A8315F | 1C19M |
| 13 | C5.54865 | A8315F | 1C19M |
| 14 | MB 640-54865/1A | A8315F | 1C19M |
| 15 | ~~MB 640-54836/1A~~ | A8315F | 1C19M |
| 16 | ~~LCS 640-54836/2A~~ | A8315F | 1C19M |
| 17 | ~~LCSD 640-54836/3A~~ | A8315F | 1C19M |
| 18 | 700-37212F5A | A8315F | 1C19M |
| 19 | 700-37214E5A | A8315F | 1C19M |
| 20 | 700-37215A1B | A8315F | 1C19M |
| 21 | 700-37216E5A | A8315F | 1C19M |
| 22 | 700-37217B1A | A8315F | 1C19M |
| 23 | 700-37220A1B | A8315F | 1C19M |
| 24 | 680-45536I4A | A8315F | 1C19M |
| 25 | 640-21177A5A | A8315F | 1C19M |
| 26 | 640-21177A6A | A8315F | 1C19M |
| 27 | 680-4560801A | A8315F | 1C19M |
| 28 | MS.54865 | A8315F | 1C19M |
| 29 | 680-4560802A | A8315F | 1C19M |
| 30 | 680-4560803A | A8315F | 1C19M |
| 31 | 680-4560804A | A8315F | 1C19M |
| 32 | ~~360-21622F2A~~ | A8315F | 1C19M |
| 33 | ~~360-21622F2B~~ | A8315F | 1C19M |
| 34 | 360-21622F2B MS | A8315F | 1C19M |
| 35 | 360-21622F2C MSD | A8315F | 1C19M |
| 36 | MA.54865 | A8315F | 1C19M |

FORM VII
HPLC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Tallahassee  Job No.: 360-21622-1

SDG No.:

Lab Sample ID: CCV 640-54906/26  Calibration Date: 03/19/2009 16:26

Instrument ID: LCM  Calib Start Date: 03/19/2009 09:36

GC Column: LC-C18  ID:  Calib End Date: 03/19/2009 10:24

Lab File ID: 1C19M36.d  Conc. Units: ug/mL

| Analyte | Curve Type | Ave RRF | RRF | Min RRF | Calc Amount | Ccal Amount | % D | Max % D |
|---|---|---|---|---|---|---|---|---|
| Formaldehyde | Lin | 22505 | 4.653 | | 12000 | 50000 | -76.1* | 15.0 |

TestAmerica Tallahassee

Semivolatile REPORT SW-846 Method 8315

Data file : \\Talsvr05\chem\LC\TLCMUV1.i\1MC199.b\1C19M36.d
Lab Smp Id: M4.54865 Client Smp ID: M4.54865
Inj Date : 19-MAR-2009 16:26
Operator : DS Inst ID: TLCMUV1.i
Smp Info : M4.54865
Misc Info : 8315
Comment :
Method : \\Talsvr05\chem\LC\TLCMUV1.i\1MC199.b\8315_A&F.m
Meth Date : 20-Mar-2009 07:38 smithdn Quant Type: ESTD
Cal Date : 19-MAR-2009 10:24 Cal File: 1C19M13.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: Form06J.sub
Target Version: 4.14
Processing Host: TALSG01

| Compounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT (ug/ml) | ON-COL (ug/ml) | REVIEW CODE |
|---|---|---|---|---|---|---|---|
| 1 Formaldehyde | 3.050 | 3.050 | 0.000 | 232661 | 12.5000 | 11.9 | |

LVL 4 = 12.5